

**DETAILED ACTION**

***Status of the Claims***

Claims 80-176 are currently pending. Claims 80-95, 97-112, and 114-161 are the subject of this Office Action. This is the first Office Action on the merits of the claims. Non-elected claims 96, 113, and 162-176 are withdrawn from consideration.

***Election/Restrictions***

Applicants' election of Group I (claims 80-165) in the reply filed on Aug. 20, 2008 is acknowledged. In response to applicant's election, Group II (claims 166-175) and Group III (claim 176) are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicants have elected Group I with traverse.

The traversal is on the ground(s) that the prior art does not render the instantly claimed cosmetic composition obvious and does not read on the technical feature of the invention. This traversal is not found to be persuasive because there are three inventions, one drawn to a cosmetic composition, one drawn to a multi-compartment kit, and one drawn to a cosmetic process. Groups I and II are drawn to a different statutory category of invention (a composition of matter) than Group III, which is drawn to a method. The inventions are not so closely related as to depend absolutely upon one another and are therefore patentably distinct.

Applicants allege that U.S. Patent 6,153,206 (ANTON) and U.S. Patent 6,106,820 (MORRISSEY) do not read on the technical feature of the invention, because

the references are silent as to the mean gloss of the disclosed compositions. However, as pointed out in the restriction requirement dated Jul. 21, 2008, and discussed further below, the polymers disclosed by both Anton and Morrissey are substantially identical to those instantly claimed and the ordinary artisan would have had a reasonable expectation that the mean gloss of these compositions would meet the instant limitation. The traversal is not persuasive for the withdrawal of the restriction requirement. The requirement is still deemed proper and is therefore made FINAL.

In the reply of Aug. 20, 2008, applicants elected the following species:

Monomer structures: isobornyl acrylate and isobutyl acrylate

Additional monomer: acrylic acid

It is noted that on page 3 of the response of the response to the restriction requirement dated Aug. 20, 2008, applicants elected acrylic acid/isobutyl acrylate/isobornyl acrylate as a *copolymer*. The species election requirement in the Office action dated Jul. 21, 2008 required a species election with respect to monomer species. To clarify the election, the examiner contacted applicants' representative Mark Sweet, who agreed that the elected *monomers* were intended to be isobornyl acrylate and isobutyl acrylate, with the additional monomer being acrylic acid (see attached interview summary). In the response dated Dec. 22, 2008, applicants have stated that claims 80-95, 97-112, and 114-161 read on the elected species. These claims will be examined further on the merits of the claims.

***Information Disclosure Statement***

References lined-through on the information disclosure statement(s) were not considered because they were not provided or were not provided in English.

***Specification***

The specification is objected to because there is currently no claim for a priority benefit on the first line of the specification. It is noted that this application appears to claim subject matter disclosed in prior Application No. PCT/FR03/02842, filed Sep. 26, 2003. A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, 121, or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not

extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

***Claim Objections***

Claim 118 is objected to because of the following informalities: the phrase "these monomers" in line 4 of the claim should be "each monomer" for clarity to emphasize that the limitation is drawn only to homopolymers of the possible monomer units.

Claim 136 is objected to because of the following informalities: the phrase "such as" in the last line of the claim should be removed. The phrase could be replaced by "chosen from" to eliminate the potentially ambiguous claim language.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112 (2<sup>nd</sup> Paragraph)***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 80-95, 97-112, and 114-161 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

A. Claims 80, 81, 150, and 151 recite the "...mean gloss at 20°..." and claims 152-157 recite the "mean gloss at 60°...". The units of degrees are undefined. Is this limitation a temperature? If so, is it in units of °C, °F, °K or some other temperature scale? Alternatively, this limitation could be referring to an angle. This term is not defined by the claim, the specification does not provide a sufficient standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is noted that the portion of the

specification dealing with the term "mean gloss" does not correct this ambiguity. For example paragraph [0014] states that the deposit is left to dry for 24 hours at a temperature of 30° C., and the gloss at 20° is then measured. It is noted that measurement of "mean gloss" in this way is not an industry standard. As such it would not be readily apparent to one of ordinary skill in the art that the recitation of 20° is intended to be a temperature. Thus, one of ordinary skill in the art would not know how the mean gloss must be measured to meet this limitation. Since one of ordinary skill in the art could not be expected to make a reasonable distinction in the absence of further definitions and/or guidance in the specification, the metes and bounds of these claims are indefinite. If applicants contend that the recitation of 20° is intended to be, for example, a temperature, applicants must show that one skilled in the art would have understood that this choice, and not another, was surely intended.

B. Claims 158 and 159 recite the limitation "...weight of active material, by weight of the polymer." Firstly, there is insufficient antecedent basis for this limitation in the claim as no active material is recited in claim 80. Secondly, It is unclear what the active material of the polymer is. For example, claim 158 recites "...from 0.1% to 60% by weight of active material, by weight of the polymer." Is the active material a part of the polymer? If so, what part? Is the active material of the polymer simply the weight of the polymer itself? Alternatively, is the active material an additive to the composition? This limitation is not defined by the claim, the specification does not provide a sufficient standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Thus, one of ordinary skill in

the art would not know what constitutes the active material. Since one of ordinary skill in the art could not be expected to make a reasonable distinction in the absence of further definitions and/or guidance in the specification, the metes and bounds of these claims are indefinite.

***Priority***

Acknowledgment is made of applicant's claim to foreign priority under 35 U.S.C. 119(a)-(d). The certified copies of the French applications were filed with the USPTO on Mar. 25, 2005.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 80-82, 84-87, 89, 90, 93, 103, 104, 144, 145, 160, and 161 are rejected under 35 U.S.C. 103(a) as being unpatentable over MOUGIN (U.S. 2002/0115780; Published Aug. 22, 2002; Reference #7 on IDS dated Jul. 19, 2006).**

1. Mougin discloses film-forming block ethylenic copolymers comprising at least one rigid block having a glass transition temperature ( $T_g$ ) greater than or equal to 20°C and at least one flexible block having a  $T_g$  of less than 20°C (abstract; claim 1). These copolymers are present in a cosmetically acceptable organic liquid medium (e.g. an oil or other solvents) (paragraphs [0099] and [0100]) and are useful in a variety of cosmetic compositions including liquid compositions such as lotions, emulsions, and pastes (paragraph [0130] and [0131]). Mougin teaches that these polymers increase the staying power of make-up compositions (paragraph [0007]) and produce cosmetics that do not wear and remain glossy (Example 4). Furthermore, Mougin teaches monomers for use in the blocks of the copolymer that are substantially identical to those claimed in the instant application (paragraphs [0047]-[0097]). These monomers include acrylic acid and isobutyl acrylate (elected species) (paragraphs [0069] and [0084]). The

number average molar mass is 51,900 and the weight-average molar mass is 114,500 (paragraph [0143]).

2. Mougin does not disclose the mean gloss of the compositions. Since the compositions of Mougin are glossy and provide high transfer resistance (i.e. staying power and wear resistance), just as those in the instant specification, it is reasonable that the cosmetic compositions taught by Mougin (e.g. Example 4) would meet the limitations of mean gloss and transfer index if measured under the highly specialized conditions required in claim 80. Furthermore, the claim only requires that the mean gloss of a deposit (of unspecified dimensions) be greater than or equal to 50 out of 100 *when present in a sufficient amount*. The compositions of Mougin are taught in a preferred embodiment as glossy nail varnishes (e.g. example 4), which are typically prepared for the very purpose of having a glossy or shiny finish. Thus, it is the examiner's position that the compositions taught by Mougin would have a mean gloss that meets the instant limitation and would be formulated as such by the ordinary artisan per the object of Mougin's invention.

3. The U.S. Patent Office is not equipped with analytical instruments to test prior art compositions for the infinite number of ways that a subsequent applicant may present previously unmeasured characteristics. When, as here, the prior art appears to contain the exact same ingredients and applicant's own disclosure supports the suitability of the prior art composition as the inventive composition component, the burden is properly shifted to applicant to show otherwise.

4. It is noted that Mougin does not describe the polymers of the invention as elastomeric, but does teach that they have elastic character. Non-elastomeric polymers were defined in the instant specification as polymers with an instantaneous recovery  $R_i$  of <50% (paragraph [0052]). Mougin teaches that the polymers of the invention have an  $R_i$  between 5% and 100% (abstract; claim 1). Mougin teaches that the value of  $R_i$  depends on many factors such as the nature, number, and relative proportion of the rigid and flexible blocks or alternatively the molar mass of the polymer. The weight-average molar mass for the polymer exemplified by Mougin is 114,500 (paragraph [0143]), which is within the preferred range of 40,000 to 150,000 disclosed in paragraph [0093] of the instant application. Furthermore, Mougin teaches monomers for use in the blocks of the copolymer that are substantially identical to those claimed in the instant application (paragraphs [0047]-[0097]), and allows for the same configuration of blocks as that instantly claimed. Since Mougin expressly teaches that the  $R_i$  may be below 50% it would be obvious to an ordinary artisan to formulate the polymers of Mougin in this range, and they are therefore non-elastomeric as defined in the instant application. Mougin teaches styrene as an *optional* component of the polymers, but discloses styrene-free embodiments, rendering claim 81 obvious. Mougin renders claims 80-82, 85, 144, 145, and 161 obvious.

5. Mougin teaches that the block ethylenic copolymers may be diblock or triblock polymers having various configurations of the blocks (paragraphs [0040]-[0043]). Even in the most simple diblock configuration (...ABABABAB...), the polymers comprise first and second blocks that are linked together via an intermediate segment comprising

constituent monomers for the first and second blocks (for example, the underlined segment in the example above is such an intermediate segment). It is reasonable that a block comprising monomers from each of a rigid ("hard") and flexible ("soft") block will have a  $T_g$  between these two extremes, as would be recognized by the ordinary artisan. Thus, Mougin renders claims 84-86 obvious. Mougin teaches that the rigid and flexible blocks must be immiscible and incompatible (paragraph [0031]; claim 8), rendering claim 87 obvious. Mougin exemplifies a liquid cosmetic composition comprising a copolymer having rigid and flexible blocks with  $T_g$  values of 70 °C and -47 °C, respectively, rendering claims 89, 90, 93, 103, and 104 obvious.

6. Mougin teaches the use of pigments (i.e. dyestuffs) in the composition (paragraph [0123]), reading on claim 160.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the forgoing discussion, the examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, in the absence of evidence to the contrary, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references.

**Claims 80-87, 89-95, 97-140, and 144-161 are rejected under 35 U.S.C. 103(a) as being unpatentable over ANTON (U.S. Patent No. 6,153,206; Issued Nov. 28, 2000; Reference # 35 on IDS dated Jul. 19, 2006) in view of KANTNER (U.S. 2002/0076390; Filed Jun. 22, 2001).**

7. Anton discloses liquid cosmetic compositions comprising a non-elastomeric film-forming synthetic ethylenic block polymer in a cosmetically acceptable liquid medium (e.g. an oil) (abstract; column 2, lines 9-23, 26-36, and 56; column 6, lines 7-10; claim 1). Anton teaches that one repeating unit (i.e. block) is preferably constructed from isobornyl methacrylate (elected species) (column 4, lines 5-27; Example 1), and has a glass transition temperature,  $T_g$  of 76-120 °C. Anton also teaches that a second block of the polymer is constructed from monomers, which when polymerized have a glass transition temperature,  $T_g$  of -10 to 75 °C. Anton teaches that the oil component is a volatile or nonvolatile oil (i.e. an organic liquid medium) (column 6, lines 8-10 and 17-19). Anton teaches that the compositions are useful as shiny, transfer resistant cosmetics (column 1, lines 60-67; Example 1).

8. Anton further teaches that the polymer of the invention may be a copolymer, a terpolymer (i.e. a polymer of three different monomers), or have any number of different units in addition to the first and second repeat units (i.e. blocks) (column 2, lines 58-62; column 4, lines 28-60). In particular, Anton teaches block terpolymers and teaches that the repeating units are monomer units which are present more than one time in the polymer chain and can be present in either repetitive sequence or in random sequence with other monomer units (column 3, lines 21-24). Anton presents a number of suitable

polymer architectures (table in column 4). Anton also emphasizes the importance of having "hard" and "soft" portions (i.e. portions having different glass transition temperatures,  $T_g$ ) in the polymer to maintain both flexibility and shine of the composition (column 2, lines 51-58).

9. Anton does not measure the mean gloss of the compositions. While Anton does not measure this property of the compositions under the highly specialized conditions described in the instant specification (paragraphs [0013]-[0022], it is an object of Anton's cosmetic compositions to provide a shiny (i.e. glossy) finish and high transfer resistance (column 1, lines 40-42 and line 60 to column 2, line 5; Example 1). Thus, it is reasonable that the glossy compositions taught by Anton (e.g. Example 1) would fulfill this requirement, and it would certainly have been *prima facie* obvious to one of ordinary skill in the art to include the polymers taught by Anton in an amount sufficient to achieve these results, reading on claims 80-82 and 150-157.

10. While Anton teaches a variety of monomers suitable for the block having a  $T_g$  of -10 to 75 °C, Anton does not teach the instantly elected species of isobornyl acrylate or isobutyl acrylate.

11. Kantner discloses cosmetic compositions containing non-elastomeric copolymers comprising a first (meth)acrylate ester monomer and a second (meth)acrylate, the various monomers having differing  $T_g$  values (abstract; paragraphs [0007] and [0010]). Kantner teaches that isobornyl (meth)acrylate (encompassing the elected species of isobornyl acrylate) is a suitable polymer for one block and that isobutyl acrylate (elected species) is a suitable polymer for the other block (paragraphs [0017] and [0018]).

Kantner teaches that both isobornyl acrylate and isobutyl acrylate are preferred monomers for the respective blocks (paragraphs [0017] and [0019]). It is noted that teachings of Kantner establish the functional equivalence of isobornyl methacrylate ( $T_g = 110^\circ\text{C}$ ) (a preferred second repeat unit taught by Anton) and isobornyl acrylate ( $T_g = 94^\circ\text{C}$ ) as the monomers of the first block (paragraph [0019], line 14). Furthermore, the teachings of Kantner establish that isobutyl acrylate ( $T_g = -24^\circ\text{C}$ ) is functionally equivalent to *n*-butyl methacrylate (a preferred first repeat unit taught by Anton) (paragraph [0017]). Kantner teaches that the compositions provide improved gloss to cosmetics (paragraph [0009]). Kantner teaches that the compositions are advantageous in cosmetics such as, *inter alia*, nail polish and lipstick since the compositions because of their ability to form hydrophobic films that impart water resistance and transfer resistance (paragraph [0013]).

12. In light of these teachings, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to substitute isobornyl acrylate for another monomer having a high  $T_g$  and isobutyl acrylate for another monomer having a low  $T_g$  (i.e. substitute one preferred monomer for another) in the copolymers taught by Anton to prepare a copolymer with excellent gloss and improved water and transfer resistance. One would have been motivated to do so since Kantner teaches a preferred set of first monomers (paragraph [0017]) that overlaps with that of Anton's first repeat unit (column 3, lines 56-65; Table in column 4). Kantner also teaches a preferred set of second monomers (paragraph [0019]) that overlaps with Anton's second repeat unit (column 3, line 66 to column 4, line 4; Table in column 4). Since the copolymers of

Kantner are useful for the very same purpose as those of Anton (i.e. producing cosmetics with improved gloss and transfer resistance), the ordinary artisan would recognize the functional equivalency between the monomer sets of Anton and Kantner, and it would have been obvious to try any combination of these monomers.

13. As noted above, even in the most simple diblock configuration (...ABABABAB...), the polymers comprise first and second blocks that are linked together via an intermediate segment comprising constituent monomers for the first and second blocks (for example, the underlined segment in the example above is such an intermediate segment). It is reasonable that a block comprising monomers from each of a rigid ("hard") and flexible ("soft") block will have a  $T_g$  between these two extremes, as would be recognized by the ordinary artisan. Furthermore, since Anton teaches block terpolymers and teaches various configurations of the blocks in the polymers (column 3, lines 21-24; table in column 4) including homopolymeric blocks (column 4, lines 28-60), it would have been obvious to an ordinary artisan to produce a polymer having homopolymeric blocks of any of the monomers taught by Anton or Kantner in any of the configurations taught by Anton. Thus, the combined teachings of Anton and Kantner render claims 80-82, 84-86, 89-95, 99-103, 106-109, 112-115, 118-121, 124-127, 137, 139, and 140 obvious.

14. Regarding claim 83, Anton does not disclose the solubility of the block polymers, but teaches the use of the substantially the same monomer components of the block polymers as those instantly claimed. Additionally, Kantner teaches that the polymers of the invention are insoluble in a water system (paragraph [0011]). Therefore, it is

reasonable that the polymers taught by the combination of Anton and Kantner will not be soluble at an active material amount of at least 1% by weight in water, and thus meet the limitations of claim 83.

15. Regarding claim 87, Anton does not disclose the compatibility of the various polymer blocks, and does not disclose the solubility of the blocks in the major organic liquid medium of the composition, which is how mutual incompatibility is defined in the instant specification (paragraph [0078]). Nonetheless, since the combination of Anton and Kantner teach an identical polymer composition to that instantly claimed, including the same types of monomers, and blocks thereof, it is reasonable that these blocks are mutually incompatible as defined in the instant specification. Thus, claim 87 is rendered obvious by Anton and Kantner.

16. Regarding claims 144-149, Anton teaches that the molecular weight average of the polymer is from 5,000 to 300,000, but is preferably from 5,000 to 50,000 (column 5, lines 23-28). Anton exemplifies a composition comprising a polymer having a molecular weight (i.e. a number-average mass) of 27,100 (Example 1), reading on instant claims 144-149.

17. Anton teaches that the first repeat unit has a  $T_g$  of about -10-75°C and the second repeat unit has a  $T_g$  of about 76-120°C (abstract; column 4, line 62 to column 5, line 1). Specifically, Anton embodies a polymer comprising blocks of isobornyl methacrylate ( $T_g = 110^\circ\text{C}$ ) and isobutyl methacrylate ( $T_g = 53^\circ\text{C}$ ) (Example 1) and teaches that a variety of other monomers are useful in the polymers, for instance n-butylmethacrylate ( $T_g = 20^\circ\text{C}$ , which has a  $T_g$  between 20°C and 40° as defined in

paragraph [0140] of the instant specification) and hexyl methacrylate ( $T_g = -5^{\circ}\text{C}$ ) (column 3, line 56 to column 4, line 38; column 5, lines 33-54, see the second table in column 5). Furthermore, Anton teaches that preferable methacrylate esters useful for the first monomer are those obtained by esterification of methacrylic acid with an aliphatic alcohol of 2 to 30 carbon atoms (column 3, lines 57-61). Thus, it would be obvious to an ordinary artisan to use any combination of these monomers rendering claims 97 and 98 obvious.

18. Anton teaches that relative to the polymer, the portions of the first and second repeat units can vary from 2-99% by weight of the first repeat unit to 1-98% by weight of the second repeat unit and vice versa (column 5, lines 3-32). Thus, it would be obvious to an ordinary artisan to use any percentage within this range for each of the blocks. As discussed above, Anton teaches that manipulating the percentages of the blocks alters the properties of the final polymer. Thus, the skilled artisan would be motivated to adjust the amounts of the first and second blocks to optimize the properties of the polymer for a particular formulation. Therefore, claims 104, 105, 110, 111, 116, 117, 122, 123, 128, and 129 are obvious over the combination of Anton and Kantner.

19. Regarding claims 130-136, it is noted that Applicants have elected the species acrylic acid as the additional monomer. Since acrylic acid does not contain a silicon atom, it is therefore presumed that acrylic acid is a hydrophilic monomer. Anton teaches a variety of monomers useful for the various polymer blocks of the polymer (column 3, line 56 to column 4, line 27; second table in column 5). As stated above, it would be *prima facie* obvious to an ordinary artisan to use any combination of these

monomers as defined by the teachings of Anton. As discussed above, Anton teaches block terpolymers and teaches that the repeating units are monomer units which are present more than one time in the polymer chain and can be present in either repetitive sequence or in random sequence *with other monomer units* (column 3, lines 21-24). Furthermore, Anton describes polymer architectures comprising at least three different monomers (column 4, lines 28-60) and teaches that the final polymer may contain, in addition to the first and second repeat units, other monomeric units such as ethylenically unsaturated monomer units and silicon repeat units. Thus, it would have been *prima facie* obvious to an ordinary artisan at the time of the invention to include such an additional monomer (in addition to isobornyl methacrylate and, a second monomer having a lower  $T_g$ ), in the polymer as taught by Anton. While Anton teaches methacrylic acid and esters thereof, acrylic acid itself is not disclosed.

20. However, Kantner teaches that the copolymer may include other monomers similar to the first and second monomers or can include an optional third monomer that has different properties than the first two. For example, the third monomer can be hydrophilic (paragraphs [0020]-[0023]). Kantner teaches that these additional monomers can improve performance or reduce cost (paragraph [0023]). Moreover, Kantner teaches that blends of two or more copolymers may be used (paragraphs [0024] and [0025]) and that this can provide a composition with improved film forming characteristics. Kantner teaches that acrylic acid is a suitable hydrophilic monomer (paragraph [0022]). Thus, it would have been *prima facie* obvious to an ordinary artisan to produce a polymer having homopolymeric blocks of any of the monomers taught by

Anton, as well as the additional monomers taught by Kantner, such as acrylic acid, rendering claims 130-136 obvious.

21. Regarding claim 138, Anton does not disclose the weight % of the additional monomer relative to the first and/or second blocks.

22. However, Kantner teaches that the additional monomer can constitute up to a about 20% weight of the total amount of monomer used (paragraph [0021]). Kantner also teaches that this amount can be adjusted (for example, used at higher concentrations) depending on the specific additional monomer employed (paragraph [0022]). Thus, it would have been well within the skill of the ordinary artisan to adjust the amount of the additional monomer based on the teachings of Anton (see upper table in column 5) and Kantner. One would be motivated to adjust the amount of the additional monomer based on the teachings of Kantner, which indicate that other monomers may be incorporated to improve performance or reduce cost, as would be recognized by the skilled artisan. Thus, an ordinary artisan would be motivated to include an additional monomer to for a variety of reasons, for instance to increase the hydrophilicity of the copolymer, or reduce the cost associated with its production as taught by Kantner (paragraph [0023]). Thus, claim 138 is obvious over Anton and Kantner.

23. Regarding claims 158 and 159, the limitation "weight of active material, by weight of polymer" has been interpreted to mean weight of the polymer relative to the total weight of the composition for the purposes of the following rejection. Anton teaches that the preferred compositions comprise from 3-30% of the copolymer (column 11, line 10),

and embodies the copolymer in the range of 19-20% by weight of the composition (Example 1), reading on claims 158 and 159.

24. Both Anton (column 9, lines 17-27; Example 1, wherein D&C and FD&C lakes are dyestuffs) and Kantner (paragraph [0030]) teach that the cosmetic compositions include other cosmetic ingredients including pigments and dyes, reading on claim 160.

25. Anton teaches that the cosmetic compositions of the invention are for application to the skin (i.e. keratin material) or lips and may be in the form of creams or a composition that has a consistency such that it can be poured or molded into the form of a stick (column 2, lines 26-41). One of ordinary skill in the art would recognize that such pourable/moldable compositions can be pastes, as is typical of anhydrous lipsticks, for example. Furthermore, Kantner teaches that the compositions are useful for, *inter alia*, mascara, eyeliner, and lipstick (paragraph [0013]). In light of these teachings, it would have been *prima facie* obvious to an ordinary artisan to produce the cosmetic compositions of Anton in the form of creams or pastes. One would be motivated to produce a paste form since the preferred embodiment of Anton is a lipstick (i.e. an anhydrous paste). Thus, claim 161 is obvious over Anton and Kantner.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the forgoing discussion, the examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary

skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, in the absence of evidence to the contrary, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references.

**Claims 88 and 141-143 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anton in view of Kantner as applied to claims 80-82, 84-87, 89, 90, 93, 103, 104, 144, 145, 160, and 161 above, and further in view of RAETHER (U.S. 2004/0014872; Filed Jun. 13, 2001; Reference #13 on IDS dated Jul. 19, 2006).**

26. The teachings of Anton and Kantner are presented above. Regarding claims 88 and 141-143, neither Anton nor Kantner disclose the polydispersity of the polymers of their inventions. However, Anton clearly teaches that a molecular weight between 5,000 to 50,000 is advantageous (column 5, lines 23-28). Thus, it is the examiner's position that it would have been obvious and fully within the purview of one having ordinary skill in the art to control the optimum molecular weight, polydispersity, polymer composition and architectures of the resultant block copolymer product by varying experimental parameters such as source, amount, and solvation of catalyst/initiators/control agents, polymerization temperature and time, etc., as taught by the references referred to by Anton (column 5, line 64 to column 6, line 6).

27. The ordinary artisan would have been motivated to select a polydispersity in the range of 3.0 because Raether discloses a composition comprising block polymers useful for cosmetics (abstract; paragraph [0092]; claim 13) and teaches that a preferred polydispersity for such polymers is between about 3-5 (paragraph [0019]) for polymers

comprising multiple segments, such as those taught by Anton and Kantner. Thus, the combined teachings of Anton, Kantner, and Raether render claims 88 and 141-143 obvious.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the forgoing discussion, the examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, in the absence of evidence to the contrary, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references.

**Claims 84 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anton in view of Kantner as applied to claims 80 and 85 above, and further in view of GALLEGUILLOS (U.S. 6,410,005; Issued Jun. 25, 2002).**

28. The teachings of Anton and Kantner are presented above. As discussed, Anton teaches that the polymer of the invention may be a copolymer, a terpolymer (i.e. a polymer of three different monomers), or have any number of different units in addition to the first and second repeat units (i.e. blocks) (column 2, lines 58-62; column 4, lines 28-60). In particular, Anton teaches block terpolymers and teaches that the repeating units are monomer units which are present more than one time in the polymer chain and

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can be present in either repetitive sequence or in random sequence with other monomer units (column 3, lines 21-24). Anton also emphasizes the importance of having "hard" and "soft" portions (i.e. portions having different glass transition temperatures,  $T_g$ ) in the polymer to maintain both flexibility and shine of the composition (column 2, lines 51-58). Even in the most simple diblock configuration (...ABABABAB...), the polymers comprise first and second blocks that are linked together via an intermediate segment comprising constituent monomers for the first and second blocks (for example, the underlined segment in the example above is such an intermediate segment). It is reasonable that a block comprising monomers from each of a rigid ("hard") and flexible ("soft") block will have a  $T_g$  between these two extremes, as would be recognized by the ordinary artisan.

29. In an alternative interpretation, the intermediate block is a completely separate type of block from the A and B blocks. In this case, Anton does not embody the instantly claimed architecture with sufficient specificity to be anticipatory and Kantner does not disclose this type of polymer configuration.

30. However, such would be an obvious variation over Anton and Kantner. For instance, Galleguillos discloses AB block copolymers for cosmetic use on keratin substrates (column 1, lines 12-14) comprising soft hydrophobic and hard hydrophilic blocks with two or more distinct glass transition temperatures, represented by Structures 1 and 2 (column 4, lines 44-65). Specifically, Galleguillos discloses a process of polymerizing a polyfunctional monomer X within the scope of the instant intermediate block constituent (see column 4, structures 1 and 2) with a first

ethylenically unsaturated monomer(s) to form an A block, and subsequently polymerizing a second ethylenically unsaturated monomer(s) containing at least one carboxylic acid group with the A block to form a B block, and the resultant block copolymer (column 3, lines 53-60; column 4, lines 18-43; column 5, lines 2- 4; column 6, line 27 to column 7, line 57). Thus, a copolymer containing blocks of -(B)p-X-(B)q-, and -(A)n-A-X-A-(A)n- is formed, wherein X is a multifunctional monomer that links the A and B blocks. The linkage of X-X reads on the instant intermediate block, wherein X is also a constituent monomer of the A and B blocks in -(B)p-X-(B)q-, and -(A)n-A-X-A-(A)n-. Absent of specific compositional and architectural details claimed for the instant intermediate block, prior art -B-X-X-A- linkages in structures 1 and 2 fall within the scope of the instant intermediate block as both blocks A and B contain at least one constituent X, as defined in the present claims.

31. Galleguillos teaches the weight percent of each of the monomers in the mixture can vary, depending on the desired properties of the final copolymer product and teaches that these properties can be tailored by varying the composition and length of the blocks (column 4, lines 38-39; column 13, lines 1-2). Galleguillos specifically discloses using varying proportion of mixtures of A and B monomers so as to achieve the desired balance of the resultant block polymer properties (column 12, lines 12-15; column 13, lines 1- 8).

32. In light of these teachings, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to prepare a polymer arranged with a first block and a second block connected by a distinct intermediate block comprising

both types of monomers, to provide a suitable polymer compound. One would have been motivated to do so since the teaching of Anton suggests such an arrangement, and since one of ordinary skill in the art would recognize that including a block comprising monomers from the "hard" and "soft" portions provides an additional means (besides the weight % of each block) to manipulate the overall properties of the polymer, as taught by Galleguillos. Further, it is well within the skill of ordinary artisan to select the appropriate properties of a copolymer for a given formulation. Therefore if an artisan wanted to produce a polymer with both high flexibility and shine (i.e. gloss) qualities, one would have been motivated to arrange the "hard" and "soft" polymer blocks such that they were connected by an intermediate block as suggested by Anton and taught by Galleguillos. Thus, the combination of Anton and Galleguillos renders claim 84 obvious.

33. Regarding claim 86, it is reasonable that a block comprising monomers from each of a "hard" and "soft" block will have a  $T_g$  between these two extremes, as would be recognized by the ordinary artisan. For example, Anton teaches that the overall  $T_g$  of the polymer lies between that of the isolated "hard" and "soft" segments (abstract; column 2, lines 13-23). Thus, given the teachings of Anton, claim 86 is rendered obvious over Anton, Kantner, and Galleguillos.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the forgoing discussion, the examiner concludes that the subject

matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, in the absence of evidence to the contrary, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

### **U.S. Patent Application No. 10/528,698**

Claims 80-95, 97-112, and 114-161 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 65-136 of copending Application No. 10/528,698. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '698 claims renders obvious that of the instant claims. The difference between the two claim sets is that the '698 claims do not recite a mean gloss of the block polymer. It is noted that the lip makeup compositions of the '698 application may be in the form of

pastes, which are liquid compositions as defined in the instant application. Since each application recites the same monomer components and architecture, in the absence of evidence to the contrary, it is reasonable that the compositions claimed in the '698 application would meet the instant limitations and vice versa. It is noted that '698 claim 96 recites the elected species of isobornyl acrylate, claim 100 encompasses the instantly elected species of isobutyl acrylate, and claim 110 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '698 claims.

As set forth above, claims 80-95, 97-112, and 114-161 are directed to an invention not patentably distinct from claims 65-136 of commonly assigned 10/528,698. Specifically, see above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 10/528,698, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

U.S. Patent Application No. 10/528,699

Claims 80-95, 97-112, and 114-161 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 78-159 of copending Application No. 10/528,699. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '699 claims renders obvious that of the instant claims. The difference between the two claim sets is that the '699 claims recite a mean gloss of the block polymer of greater than or equal to 50 out of 100. This composition would therefore meet the instant requirements of a mean gloss of 30 out of 100. Furthermore, each application recites the same monomer components and architecture. It is noted that '699 claim 91 recites the elected species of isobornyl acrylate, claim 125 encompasses the instantly elected species of isobutyl acrylate, and claim 132 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '699 claims.

As set forth above, claims 80-95, 97-112, and 114-161 are directed to an invention not patentably distinct from claims 78-159 of commonly assigned 10/528,699.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP

Chapter 2300). Commonly assigned 10/528,699, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

U.S. Patent Application No. 10/529,264

Claims 80-95, 97-112, and 114-161 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-56 of copending Application No. 10/529,264. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '264 claims renders obvious that of the instant claims. The difference between the two claim sets is that the '264 claims do not recite a mean gloss. However, the mean gloss would be optimized by the skilled artisan preparing lip or nail makeup products comprising the instantly claimed polymers. Furthermore, since the mean gloss is an inherent property of a given polymer and since each application recites the same

monomer components and polymer architecture, in the absence of evidence to the contrary, it is reasonable that the compositions claimed in the '264 application would meet the mean gloss limitations and vice versa. It is noted that '264 claim 23 recites the elected species of isobornyl acrylate, claim 27 encompasses the instantly elected species of isobutyl acrylate, and claim 36 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '264 claims.

As set forth above, claims 80-95, 97-112, and 114-161 are directed to an invention not patentably distinct from claims 1-56 of commonly assigned 10/529,264. Specifically, see above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 10/529,264, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon

the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

U.S. Patent Application No. 10/529,266

Claims 80-95, 97-112, and 114-161 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 80-165 of copending Application No. 10/529,266. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '266 claims anticipates or renders obvious that of the instant claims. The difference between the two claim sets is that the '266 claims recite that the composition has a transfer index of less than or equal to 40 out of 100. Regarding this limitation, the transfer index (i.e. transfer resistance) would be optimized by the skilled artisan. As taught by Anton, the "hard" portions of the polymers taught are responsible for shine of the polymer. Thus, it would be obvious to an ordinary artisan to optimize the gloss of the lipstick formulation. Since each application recites the same monomer components and architecture, in the absence of evidence to the contrary, it is reasonable that the compositions claimed in the instant application would meet the '266 limitation and vice versa. It is noted that '266 claims 111 and 117 recite the elected species of isobornyl acrylate, claims 114 and 117 encompass the elected species of isobutyl acrylate, and claim 154 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '266 claims.

***Conclusion***

No claims are currently allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S. Orwig whose telephone number is (571)270-5869. The examiner can normally be reached Monday-Friday 7:00 am-4:00 pm (with alternate Fridays off). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached Monday-Friday 8:00 am-5:00 pm at (571)272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KSO

/David J Blanchard/  
Primary Examiner, Art Unit 1643